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# DIAGNOSTICS/PROGNOSTICS USING WIRELESS LINKS

## Reference to Related Applications

TN 11/08/04

[0001] Priority is claimed to U.S. Provisional Patent Application 60/302,244, filed June 29, 2001, and U.S. Patent Application Serial No. 10/029,048, filed December 20, 2001, now U.S. Patent No 6,662,091. This application also contains related subject matter to U.S. Provisional Patent Application Serial No. 60/302,563, filed July 2, 2001, and U.S. Patent Application Serial No. 10/188,469, filed July 2, 2002. Each of these is hereby incorporated by reference herein.

## Background

[0002] The present invention relates to diagnostic/prognostic techniques, and more particularly, but not exclusively, relates to diagnostic and/or prognostic systems for machines, where the systems include sensors that communicate information through wireless transponders.

[0003] As machines become more sophisticated, the desire has grown for techniques to determine and/or predict machine failures in a more cost-effective manner. The condition-based maintenance approach of on-board diagnostics and prognostics can substantially reduce the life-cycle costs of owning and operating machines. However, retrofitting existing machines with sensors required for on-board diagnostics and prognostics is often impractical due in large measure to the cost and complexity of installing the necessary wiring and wiring harnesses. Thus, there is an ongoing need for further contributions in this area of technology.

[0004] Present diagnostic and prognostic systems and methods suffer from limitations in ease, cost, and flexibility of installation. There is thus a need for further contributions and improvements to sensor system technology.